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The State of Utah

Department of Natural Resources

Division of Oil, Gas & Mining

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Executive Director

LOWELL P. BRAXTON
Division Director

OLENE S. WALKER
Governor

GAYLE F. McKEACHNIE
Lieutenant Governor

Inspection Report

Representatives Present During the Inspection:
OGM Steven Fluke Environmental Scientist II
OGM Justin Eatchel Coal Intern

Permit Number:	C0410002
Inspection Type:	TECHNICAL
Inspection Date:	Wednesday, May 19, 2004
Start Date/Time:	05/19/2004 10:00:00 AM
End Date/Time:	05/19/2004 4:00:00 PM
Last Inspection:	Thursday, April 29, 2004

Inspector: Steven Fluke, Environmental Scientist II

Weather: overcast, cool ~60 F, calm

InspectionID Report Number: 281

Accepted by: dhaddock OK
06/01/2004

Permitee: CANYON FUEL COMPANY LLC
Operator: CANYON FUEL COMPANY LLC
Site: SUFCO MINE
Address: 397 S 800 W, SALINA UT 84654
County: SEVIER
Permit Type: PERMANENT COAL PROGRAM
Permit Status: ACTIVE

Current Acreages

24,632.95	Total Permitted
27.36	Total Disturbed
	Phase I
	Phase II
	Phase III

Mineral Ownership

- [x] Federal
- [x] State
- [ ] County
- [ ] Fee
- [ ] Other

Types of Operations

- [x] Underground
- [ ] Surface
- [ ] Loadout
- [ ] Processing
- [ ] Reprocessing

Report summary and status for pending enforcement actions, permit conditions, Divison Orders, and amendments:

Steve Fluke and Justin Eatchel of DOGM returned to the East Fork of Box Canyon (EFB) to measure and further evaluate the dry and diminished flow sections of the undermined stream. We also hiked to the surface above the Elusive Peacock Shelter to observe the large subsidence fractures and warning sign placed by the SUFCO mine.

Inspector's Signature: Steven Fluke Date Tuesday, May 25, 2004

Steven Fluke, Environmental Scientist II
Inspector ID Number: 53

Note: This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas and Mining

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Inspection Continuation Sheet

REVIEW OF PERMIT, PERFORMANCE STANDARDS, PERMIT CONDITION REQUIREMENT

1. *Substantiate the elements on this inspection by checking the appropriate performance standard.*
   a. *For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.*
   b. *For PARTIAL inspections check only the elements evaluated.*
2. *Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.*
3. *Reference any narratives written in conjunction with this inspection at the appropriate performace standard listed below.*
4. *Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.*

	Evaluated	Not Applicable	Comment	Enforcement
1. Permits, Change, Transfer, Renewal, Sale	☐	☑	☐	☐
2. Signs and Markers	☑	☐	☑	☐
3. Topsoil	☐	☑	☐	☐
4.a Hydrologic Balance: Diversions	☐	☑	☐	☐
4.b Hydrologic Balance: Sediment Ponds and Impoundments	☐	☑	☐	☐
4.c Hydrologic Balance: Other Sediment Control Measures	☐	☑	☐	☐
4.d Hydrologic Balance: Water Monitoring	☐	☑	☐	☐
4.e Hydrologic Balance: Effluent Limitations	☐	☑	☐	☐
5. Explosives	☐	☑	☐	☐
6. Disposal of Excess Spoil, Fills, Benches	☐	☑	☐	☐
7. Coal Mine Waste, Refuse Piles, Impoundments	☐	☑	☐	☐
8. Noncoal Waste	☐	☑	☐	☐
9. Protection of Fish, Wildlife and Related Environmental Issues	☐	☑	☐	☐
10. Slides and Other Damage	☑	☐	☑	☐
11. Contemporaneous Reclamation	☐	☑	☐	☐
12. Backfilling And Grading	☐	☑	☐	☐
13. Revegetation	☐	☑	☐	☐
14. Subsidence Control	☐	☑	☐	☐
15. Cessation of Operations	☐	☑	☐	☐
16.a Roads: Construction, Maintenance, Surfacing	☐	☑	☐	☐
16.b Roads: Drainage Controls	☐	☑	☐	☐
17. Other Transportation Facilities	☐	☑	☐	☐
18. Support Facilities, Utility Installations	☐	☑	☐	☐
19. AVS Check	☐	☑	☐	☐
20. Air Quality Permit	☐	☑	☐	☐
21. Bonding and Insurance	☐	☑	☐	☐
22. Other	☐	☐	☑	☐

2. Signs and Markers

We observed the warning sign placed near the end of the USFS road that ends above the Elusive Peacock Shelter. The sign says, "Danger, KeepOut, Open Fractures in Area". The sign was placed at the request and consultation with the Manti-La Sal F.S. and DOGM. The sign is visible to anyone accessing the area through this road.

10. Slides and Other Damage

We entered the East Fork of Box Canyon (EFB) from the west just upstream of EFB-4. Water was flowing intermittently in the stream from where we entered to approximately EFB-5 where it began to flow continuously. Approximately 200 feet downstream of EFB-4, a new slump along the east streambank has occurred that is about 25' wide by 20' tall. The slump does not block the stream flow. This section of the stream is well out of the 3LPE angle-of-draw.

Eleven sections of the stream were observed to be dry and flowing subsurface. These sections were measured and are described below. Photos are located in the CTS database.

Loss 1: No fractures or damage to the stream channel were observed heading downstream within the 3LPE angle-of-draw from EFB-7 until approximately 40 feet before EFB-14. At this point, the stream flow (estimated 10 gpm) slows to a trickle and goes dry within 30 feet by infiltration into the sandy stream bottom (2 photos). The stream was dry for 344 feet beyond this point. The sandstone bedrock has a major buckle in the dry streambed just before flow resumes (photo). Flow resumes again at a shale layer (photo) and appears to be completely restored for 89 feet.

Loss 2: Flow is lost into sandy, fractured bedrock (photo) leaving a dry streambed for 42 feet. Flow picks up again at a small pool at the base of a sandstone layer (photo) and continues downstream for 174 feet.

Loss 3: Flow is lost into sandy, fractured bedrock for 54 feet. The streambed is damp but no flow is evident for this section (photo). The flow picks up again at shale layer at the beginning of the pond formed by the slide area (2 photos). Flow resumes for 120 feet but appears diminished downstream of the pond.

Loss 4: Flow is lost into sandy, fractured bedrock for 81 feet (photo). Flow resumes along the east sreambank at a shale layer (photo) but appears diminished for 100 feet.

Loss 5: Flow is lost in buckled sandstone for 18 feet between the confluence of spring Pines 214 and the stream and EFB-11. Flow resumes at a pool and appears to have increased some from flow above this loss. Flow continues for 120 feet.

Loss 6: Flow is lost into a hole within the sandy, cobbly streambed (photo). The stream is dry for 225 feet. Iron staining on the bedrock in the stream channel is evident at 185 feet where water was observed flowing on the 4/29 site visit. Flow

resumes with iron staining along a sandy bottom with equisetum. Flow appears diminished again and is iron stained for 134 feet until it is lost again.

Loss 7: Flow is lost in fractured sandstone for 53 feet. When the flow resumes for a short section of 13 feet, it no longer is iron stained and it still appears diminished.

Loss 8: Flow is lost for 13 feet and resumes as diminished flow for 55 feet.

Loss 9: Flow is lost in fractured sandstone for 26 feet and resumes as diminished flow for 86 feet.

Loss 10: Flow is lost to sandy, fractured sandstone for 22 feet and resumes as diminished flow for 56 feet.

Loss 11: Flow is lost to cobbles, sand, and sandstone bedrock for 83 feet. At 45 feet, a spring surfaces at a pool but no water flows from it as the water appears to infiltrate into the sandy bottom of the pool. Flow resumes diminished at first, but picks up flow and appears fully recovered by 100 feet.

22. Other

Future action: According to the monitoring and mitigation plan in the mine's MRP, the mine has committed to "immediately seal subsidence cracks and fractures identified within the stream channel wet bank with bentonite or bentonite grout". The mine should proceed by obtaining a stream alteration permit from the Division of Water Rights.